

moment to call to mind a fable of the Monkey who had seen the world. Now, supposing the Monkey to have been a collector of animals, and in Europe to have obtained some *white people with red or fair hair*, and upon his arrival in Africa to have met with the Negroes *black as jet, with flat noses, thick lips, and black woolly heads*, I think he would have been justified in regarding them as a very well-marked and distinct species. We are, however, in a position better able to understand that *time, climate, food, and other circumstances* may so change the condition and appearance that the original type may be said to have disappeared altogether. I venture to say this change is now taking place, however slowly it may be. It is noticeable in America, and doubtless in a few generations (without fresh arrivals of Europeans) the descendants of Europeans are gradually developing the peculiarities of the original natives of that country.

In conclusion I feel it is necessary to offer a few words in defence of naming animals that are nearly allied and calling them by new names, in order to constitute them as species. This practice has of late received a check; and it appears to me a very reasonable and proper mode of treating the subject to consider a large number of the animals that exhibit a few trifling differences to be only local varieties of the same species. At the same time we must bear in mind that in order to do this we should seek for intermediate forms or individuals that may be regarded as uniting two extremely different creatures. In the present instance I have failed to find any animal showing this tendency to be intermediate between this animal and the well-known Chimpanzee.

7. Remarks on *Ovis nivicola*. By F. H. H. GUILLEMARD,
M.A., M.D., F.L.S., F.Z.S., &c.

[Received June 16, 1885.]

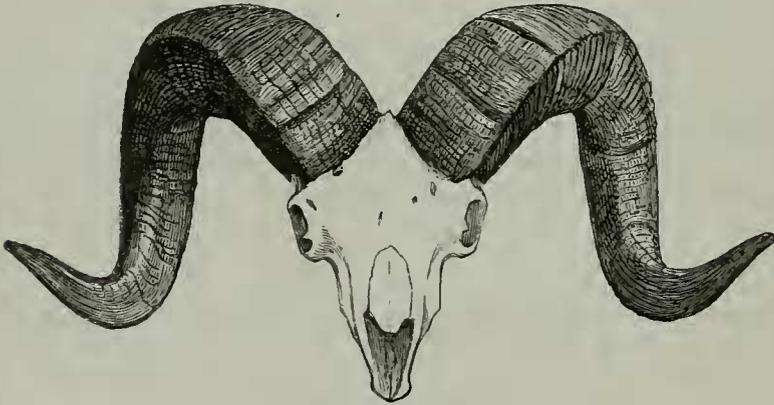
The few notes I have on the habits and structural peculiarities of the Kamschatkan Wild Sheep, *Ovis nivicola*, Eschscholtz, a series of the skulls of which I have the honour of exhibiting, may possibly be of interest.

In the beginning of August 1882, Mr. Kettlewell's yacht 'Marchesa' arrived in Petropaulovsky, and shortly afterwards a small party, of which I was a member, started on an expedition through the centre of the peninsula, and, striking the great Kamschatka River near its source, descended it a distance of 450 miles to the sea. Our land journey led us through more or less mountainous country, and we had hoped to obtain information concerning Big-horn at Gunol, a little settlement of cross-bred Siberians and Kamschatdales, in the centre of the southern part of the peninsula. Near this place is a small range of low mountains, bare and rocky, about three or four thousand feet in height, the summits only of which were covered with snow. We were informed

that there were a few Sheep here, but that it was very difficult to get them except in winter. As our time was limited, our chances of obtaining them were not considered promising enough to stop. Narcheeki also, in the Bolcheresk valley, was mentioned to us as another locality, a fact we were ourselves able to verify, as the natives had killed a young male only a few days previous to our arrival.

On reaching the neighbourhood of the magnificent volcanoes which guard the lower part of the Great Kamschatka River, I again made inquiries as to the existence of *Ovis nivicola* on their slopes, but was told that there were none. I cannot vouch, however, for the truth of the statement, as the natives live in superstitious awe of the mountains, and have never ascended them to any height. We had thus traversed the country without obtaining a single specimen; and we should have returned empty-handed had it not been for a Russian sable hunter accompanying our expedition, who informed us

Fig. 1.

Head of *Ovis nivicola*.

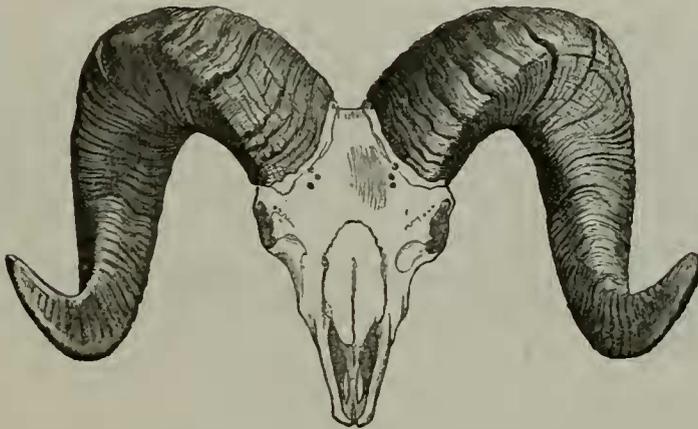
that he had seen and shot several on the sea-cliffs of the east coast, some fifty miles E.N.E. of Petropaulovsky. On our return voyage from Behring Island we accordingly shaped our course for this spot; and on nearing the land we could distinctly make out small herds of the animals of which we were in search on the slopes of the cliffs, which here rose to a height of five or six hundred feet. Finding a good anchorage we at once arranged to stay, and in two days we brought to bag no less than thirteen individuals, all of which were full-grown males.

The general colour of the Kamschatkan Wild Sheep is a brownish grey, and the hair of those obtained by us at the end of the month of September was very long and thick. The head and neck are more distinctly grey than the rest of the body. Forehead with an ill-marked darker patch; upper and under lip greyish white. Anterior aspect of the limbs dark glossy brown; a line running down posterior aspect white. Tail short, dark brown; centre of belly and rump

white; this colour does not surround the tail. The ears are remarkably short.

Sir Victor and Mr. Basil Brooke, in their article on Asiatic Sheep (P. Z. S. 1875, p. 509), remark on the resemblance of the horns of this species to those of *O. montana*, with which latter it has indeed, by some naturalists, been regarded as identical. But, as will be seen by the annexed illustrations, the uniformly smaller size of the head, the shortness and great breadth of the skull in its anterior aspect, the slight development of the præorbital fossæ, and the protuberance

Fig. 2.

Head of *Ovis montana*.

of the orbit itself serve to distinguish markedly the Kamschatkan Sheep from that of America.

The horns are less rugose than those of *O. montana*. The frontal surface is convex; the orbital surface at first concave, then flat, thus causing the fronto-orbital edge to be very sharp. The nuchal surface is convex and afterwards flattened; and the two remaining edges are rounded.

The following are the measurements obtained from a series of nine skulls:—

	<i>Ovis nivicola</i> .									<i>Ovis montana</i> .	
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Length of skull.....	10½	10½	9¾	10¼	10¾	9¾	10½	10¼	...	11	13½
Breadth between orbits	5¾	5¾	4¾	5½	5¾	5½	5½	5¼	...	4¾	6
Length of horns round } curve	35	34¾	24	32¼	35½	38	32½	26½	35	...	43
Circumference of horns } at base	13¼	14½	13	14	14	13½	13¾	12½	13¼	...	...
Horns from tip to tip ...	21	25	17½	21	26½	26	22½	21½	25½	...	...

Measurements in the flesh of the thirteen individuals obtained were also taken, and are as follows :—

Supposed age (yrs.)...	3	3	5	5	5	5	5	6	6	6	6?	6	6
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Extreme length	65½	63	62	64	64	66	...	66	65	66	66	67	67
Greatest girth	53	53	56	54	55	...	...	56½	...	54	53	54	55
Height at shoulder ...	38	39	38	39½	37	...	...	40	41	40	37	40½	39

The above measurements are in English inches.

The animals seemed to confine themselves to the precipitous slopes of the sea-cliffs, and were in small herds of from three to nine individuals, all of which apparently were males between the ages of three and six years. As in the case of other Wild Sheep, the females and young males doubtless keep apart ; but we were not fortunate enough to discover their habitat, neither could we obtain any information about them from the natives.

I regret to say that the two skeletons we prepared were lost during a typhoon encountered by the ' Marchesa ' in the China seas on her return voyage.

8. On the Geographical Races of the Rocky-Mountain Bighorn. By Lieut.-Col. JOHN BIDDULPH, F.Z.S.

[Received June 16, 1885.]

In the ' Proceedings of the United-States National Museum ' for last year, Mr. Nelson has given the name of *Ovis montana dalli* to the Wild Sheep of Alaska, which he describes as a new geographical race of the Bighorn of the Rocky Mountains. Mr. Nelson relates that he saw two individuals in a wild state, and many hundreds of skins of the species, while he was in Alaska. He states that it inhabits suitable localities all over Alaska and in British North America. Few details of description are given in the paper, but a fuller account is promised in a general list of Alaskan Mammals now in course of preparation. Beyond stating that it is of a uniform dirty-white colour, so that the posterior disk is indistinguishable, and that its horns are smaller, Mr. Nelson points out no differences between specimens of the Alaskan species or variety and specimens from the United States.

Having devoted some time to studying the Wild Sheep both of Asia and America, I had noticed the fact that there are two distinct types to be distinguished among the North-American Wild Sheep before I had seen Mr. Nelson's paper ; but I will not at present go so far as to say that they constitute two distinct species.